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## (54) Planar antenna structure

(57) The invention relates to the structure of a dual-band planar antenna. The radiating element (210) in a planar antenna (200) has a slot consisting of two portions of different widths. One end of the wider portion (216) of the slot is close to the feed point (S) of the radiating element. The narrower portion (217) of the slot

starts from a point in the wider portion and extends to the edge of the radiating element. The portions of the slot are advantageously straight. The order of magnitude of the ratio ( $w_1/w_2$ ) of the widths of the portions is three. An advantage of the invention is that the bandwidths of a dual-band planar antenna are larger than those of prior-art structures of the same size.

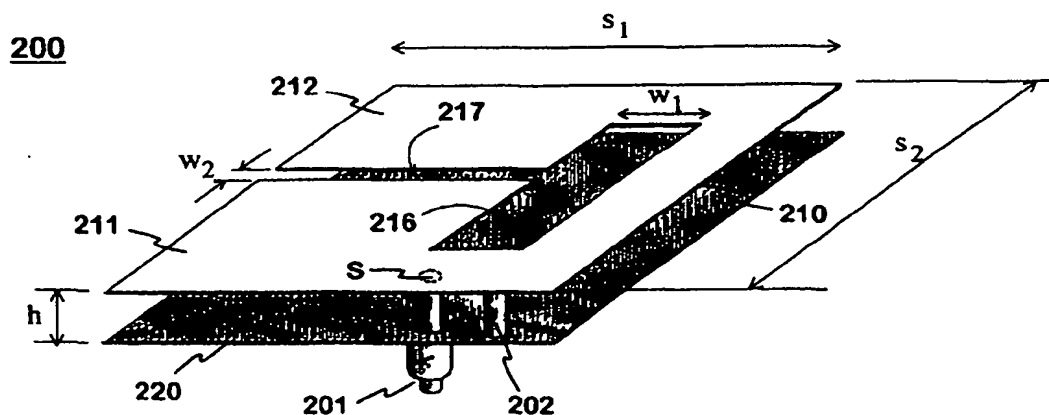


Fig. 2

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# EUROPEAN SEARCH REPORT

Application Number  
EP 00 66 0139

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Y	* column 4, line 7 - column 5, line 8 * * column 8, line 30 - line 46 * * column 9, line 36 - line 53 * * figures 1,2,7,10A,10B * * abstract *	3,5	
Y	EP 0 929 121 A (NOKIA MOBILE PHONES LTD) 14 July 1999 (1999-07-14) * column 7, line 27 - line 53 * * figures 6,7 * * abstract *	3,5	
X	EP 0 590 671 A (TOKYO SHIBAURA ELECTRIC CO) 6 April 1994 (1994-04-06) * column 20, line 34 - line 47 * * figures 29A,29B * * abstract *	1,2,4,6,7	
A	HAMMAD H F ET AL: "Dual band aperture coupled antenna using spur line" ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 33, no. 25, 4 December 1997 (1997-12-04), pages 2088-2090, XP006008291 ISSN: 0013-5194 * the whole document *	1,3,4,7	TECHNICAL FIELDS SEARCHED (In Cl.7) H01Q
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 12 March 2003	Examiner von Walter, S-U
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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